

WHAT IS CLAIMED IS:

- 1 1. A method for generating a status page to display on a computer display,  
2 comprising:  
3 receiving a request for status information on a resource;  
4 determining an operation being performed with respect to the resource;  
5 generating data to display a progress bar indicating a percent of the operation that  
6 has completed, wherein a first part of the progress bar indicates a percent of the operation  
7 that has completed and a second part of the progress bar indicates a percent of the  
8 operation that has not completed;  
9 determining an attribute of the operation; and  
10 generating data to display information with one of the first part or second part of the  
11 progress bar indicating the determined attribute of the operation.
- 1 2. The method of claim 1, wherein the determined attribute indicates a reason  
2 the operation is being performed.
- 1 3. The method of claim 1, wherein the determined attribute is capable of  
2 having one of multiple values, wherein the data to display the information indicating the  
3 determined attribute further indicates the determined attribute value, wherein different  
4 information is displayed for each attribute value.
- 1 4. The method of claim 1, wherein the information indicating the determined  
2 attribute is displayed with the second part of the progress bar and further indicates a state  
3 of the resource after the operation completes.

1 5. The method of claim 4, wherein displaying the first or second part with  
2 information comprises displaying the first or second part of the bar in a manner that conveys  
3 the information indicating the determined attribute value of the operation.

1 6. The method of claim 5, wherein displaying the first or second part of the  
2 bar in the manner that conveys the information comprises displaying the first or second part  
3 of the bar in a color that is associated with the determined attribute value of the operation,  
4 wherein there are different colors associated with different attribute values.

1 7. The method of claim 1, wherein the resource comprises a storage device  
2 and the operation comprises a formatting operation performed with respect to the storage  
3 device.

1 8. The method of claim 7, wherein the determined attribute is capable of  
1 indicating one of multiple possible sources of the formatting operation, wherein the  
2 generated data to display the information indicating the determined attribute further indicates  
3 the determined source of the formatting operation, and wherein different information is  
4 displayed for each different source.

1 9. The method of claim 8, wherein the formatting operation comprises a  
2 rebuild operation to reconstruct a storage space in the storage device, wherein the source  
3 of the formatting operation is capable of comprising a modification to the configuration or a  
4 failure within the storage device.

1 10. The method of claim 9, wherein displaying the first or second part of the  
2 bar with information comprises displaying the first or second part of the bar in a color that is  
3 associated with the determined source of the rebuild operation.

1 11. The method of claim 7, wherein the storage device includes multiple  
2 interfaces, wherein each interface is capable of engaging one storage unit, further  
3 comprising:  
4 generating data to display information on the status of each interface with the  
5 displayed progress bar, wherein the information is capable of indicating that each interface  
6 is empty or includes an available storage unit, wherein the formatting operation is performed  
7 with respect to the available storage units engaged with the interfaces.

1 12. The method of claim 11, wherein the information on the status of each  
2 interface is further capable of indicating whether the interface is engaged with a storage unit  
3 that is available as a hot spare for use if one available storage unit engaged with another  
4 interface fails.

1 13. The method of claim 12, wherein the storage device comprises a  
2 Redundant Array of Independent Disks (RAID) and the storage units comprise hard disk  
3 drives, and wherein the formatting operation is performed with respect to a logical storage  
4 space that spans multiple of the available storage units.

1 14. The method of claim 7, wherein the storage device includes a network  
2 interface and performs the steps of receiving the request for status information and  
3 generating the data to display, wherein the request is received from a computer over the  
4 network, further comprising:

5 adding the data to a file; and

6 transmitting the file over the network to the computer submitting the request.

1 15. The method of claim 14, wherein the file is capable of being rendered by an  
2 Internet browser program.

1           16.    A system for generating a status page to display on a computer display,  
2 comprising:  
3           means for receiving a request for status information on a resource;  
4           means for determining an operation being performed with respect to the resource;  
5           means for generating data to display a progress bar indicating a percent of the  
6 operation that has completed, wherein a first part of the progress bar indicates a percent of  
7 the operation that has completed and a second part of the progress bar indicates a percent  
8 of the operation that has not completed;  
9           means for determining an attribute of the operation; and  
10          means for generating data to display information with one of the first part or second  
11 part of the progress bar indicating the determined attribute of the operation.

1           17.    The system of claim 16, wherein the determined attribute indicates a reason  
2 the operation is being performed.

1           18.    The system of claim 16, wherein the determined attribute is capable of  
2 having one of multiple values, wherein the data to display the information indicating the  
3 determined attribute further indicates the determined attribute value, and wherein different  
4 information is displayed for each attribute value.

1           19.    The system of claim 16, wherein the information indicating the determined  
2 attribute is displayed with the second part of the progress bar and further indicates a state  
3 of the resource after the operation completes.

1           20.    The system of claim 19, wherein the means for generating data to display  
2 the first or second part with information includes data to display the first or second part of

3 the bar in a manner that conveys the information indicating the determined attribute value of  
4 the operation.

1 21. The system of claim 20, wherein the means for generating data to convey  
2 the information generates data to display the first or second part of the bar in a color that is  
3 associated with the determined attribute value of the operation, wherein there are different  
4 colors associated with different attribute values.

1 22. The system of claim 16, wherein the resource comprises a storage device  
2 and the operation comprises a formatting operation performed with respect to the storage  
3 device.

1 23. The system of claim 22, wherein the determined attribute is capable of  
1 indicating one of multiple possible sources of the formatting operation, wherein the  
2 generated data to display the information indicating the determined attribute further indicates  
3 the determined source of the formatting operation, and wherein different information is  
4 displayed for each different source.

1 24. The system of claim 23, wherein the formatting operation comprises a  
2 rebuild operation to reconstruct a storage space in the storage device, wherein the source  
3 of the formatting operation is capable of comprising a modification to the configuration or a  
4 failure within the storage device.

1 25. The system of claim 24, wherein generating data to display the first or  
2 second part of the bar with information generates data to display the first or second part of  
3 the bar in a color that is associated with the determined source of the rebuild operation.

1           26.     The system of claim 22, wherein the storage device includes multiple  
2 interfaces, wherein each interface is capable of engaging one storage unit, further  
3 comprising:  
4           means for generating data to display information on the status of each interface with  
5 the displayed progress bar, wherein the information is capable of indicating that each  
6 interface is empty or includes an available storage unit, and wherein the formatting operation  
7 is performed with respect to the available storage units engaged with the interfaces.

1           27.     The system of claim 26, wherein the information on the status of each  
2 interface is further capable of indicating whether the interface is engaged with a storage unit  
3 that is available as a hot spare for use if one available storage unit engaged with another  
4 interface fails.

1           28.     The system of claim 27, wherein the storage device comprises a Redundant  
2 Array of Independent Disks (RAID) and the storage units comprise hard disk drives, and  
3 wherein the formatting operation is performed with respect to a logical storage space that  
4 spans multiple of the available storage units.

1           29.     The system of claim 22, wherein the storage device includes a network  
2 interface and performs the steps of receiving the request for status information and  
3 generating the data to display, wherein the request is received from a computer over the  
4 network, further comprising:  
5           means for adding the data to a file; and  
6           means for transmitting the file over the network to the computer submitting the  
7 request.

1           30.    The system of claim 29, wherein the file is capable of being rendered by an  
2 Internet browser program.

1           31.    An article of manufacture including code for generating a status page to  
2 display on a computer display by:  
3           receiving a request for status information on a resource;  
4           determining an operation being performed with respect to the resource;  
5           generating data to display a progress bar indicating a percent of the operation that  
6 has completed, wherein a first part of the progress bar indicates a percent of the operation  
7 that has completed and a second part of the progress bar indicates a percent of the  
8 operation that has not completed;  
9           determining an attribute of the operation; and  
10          generating data to display information with one of the first part or second part of the  
11 progress bar indicating the determined attribute of the operation.

1           32.    The article of manufacture of claim 31, wherein the determined attribute  
2 indicates a reason the operation is being performed.

1           33.    The article of manufacture of claim 31, wherein the determined attribute is  
2 capable of having one of multiple values, wherein the data to display the information  
3 indicating the determined attribute further indicates the determined attribute value, wherein  
4 different information is displayed for each attribute value.

1           34.    The article of manufacture of claim 31, wherein the information indicating  
2 the determined attribute is displayed with the second part of the progress bar and further  
3 indicates a state of the resource after the operation completes.

1           35.     The article of manufacture of claim 34, wherein displaying the first or  
2     second part with information comprises displaying the first or second part of the bar in a  
3     manner that conveys the information indicating the determined attribute value of the  
4     operation.

1           36.     The article of manufacture of claim 35, wherein displaying the first or  
2     second part of the bar in the manner that conveys the information comprises displaying the  
3     first or second part of the bar in a color that is associated with the determined attribute  
4     value of the operation, wherein there are different colors associated with different attribute  
5     values.

1           37.     The article of manufacture of claim 31, wherein the resource comprises a  
2     storage device and the operation comprises a formatting operation performed with respect  
3     to the storage device.

1           38.     The article of manufacture of claim 37, wherein the determined attribute is  
1     capable of indicating one of multiple possible sources of the formatting operation, wherein  
2     the generated data to display the information indicating the determined attribute further  
3     indicates the determined source of the formatting operation, and wherein different  
4     information is displayed for each different source.

1           39.     The article of manufacture of claim 38, wherein the formatting operation  
2     comprises a rebuild operation to reconstruct a storage space in the storage device, wherein  
3     the source of the formatting operation is capable of comprising a modification to the  
4     configuration or a failure within the storage device.



1           40.     The article of manufacture of claim 39, wherein displaying the first or  
2     second part of the bar with information comprises displaying the first or second part of the  
3     bar in a color that is associated with the determined source of the rebuild operation.

1           41.     The article of manufacture of claim 37, wherein the storage device includes  
2     multiple interfaces, wherein each interface is capable of engaging one storage unit, further  
3     comprising:

4                 generating data to display information on the status of each interface with the  
5     displayed progress bar, wherein the information is capable of indicating that each interface  
6     is empty or includes an available storage unit, wherein the formatting operation is performed  
7     with respect to the available storage units engaged with the interfaces.

1           42.     The article of manufacture of claim 41, wherein the information on the status  
2     of each interface is further capable of indicating whether the interface is engaged with a  
3     storage unit that is available as a hot spare for use if one available storage unit engaged with  
4     another interface fails.

1           43.     The article of manufacture of claim 42, wherein the storage device  
2     comprises a Redundant Array of Independent Disks (RAID) and the storage units comprise  
3     hard disk drives, and wherein the formatting operation is performed with respect to a logical  
4     storage space that spans multiple of the available storage units.

1           44.    The article of manufacture of claim 37, wherein the storage device includes  
2   a network interface and performs the steps of receiving the request for status information  
3   and generating the data to display, wherein the request is received from a computer over  
4   the network, further comprising:

5           adding the data to a file; and

6           transmitting the file over the network to the computer submitting the request.

1           45.    The article of manufacture of claim 44, wherein the file is capable of being  
2   rendered by an Internet browser program.

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